

Amendments to the Claims

Please amend the claims preliminarily as follows:

1-13. Canceled

1 14. (new) A cartridge for holding a fuel comprising::
2 an enclosing outer wall;
3 an inner wall that separates an interior of the cartridge into a first chamber and a
4 second chamber;
5 an inner opening in the inner wall;
6 a recess in a surface of the outer wall in the second chamber;
7 a outer channel extending through the outer wall and connecting the second
8 chamber, via the recess, to an external region outside of the outer wall;
9 an axially movable sealing member that extends through the inner opening;
10 a first sealing arrangement provided on a first end the axially movable sealing
11 member within the first chamber;
12 a second sealing arrangement provided on a second end of the axially movable
13 sealing member that is opposite the first end;
14 a inner channel that extends from a first opening in the axially movable sealing
15 member, through an interior channel in the axially movable sealing member, and to a
16 second opening in the axially movable sealing member;
17 in which:
18 when the axially movable sealing member is in a closed position, the first sealing
19 arrangement seats against the inner wall, blocking communication of the first opening
20 with the first chamber; the second sealing arrangement seats against the outer wall, in
21 the recess, blocking communication of second chamber with the external region,
22 whereby the flow channel is closed to flow of the fuel between the first chamber and the
23 external region;
24 when the axially movable sealing member is in an open position, the first opening
25 in the axially movable sealing member is in fluid communication with the first chamber,
26 the second opening in the axially movable sealing member is in fluid communication

27 with the second chamber, and the second chamber is in fluid communication, through
28 the recess and the outer channel, with the external region, whereby fuel can flow
29 between the first chamber and the external region via the inner channel, the second
30 chamber, the recess, and the outer channel;

31 further comprising a biasing element biasing the axially movable sealing member
32 into the closed position.

1 15. (new) A cartridge as in claim 14, further comprising a pushing element
2 connected to the second sealing arrangement and extending into the outer channel
3 such that the axially movable sealing member is moved from the closed to the open
4 position when an axial force is applied to the pushing element sufficient to overcome a
5 biasing force of the biasing element.

1 16. (new) A cartridge as in claim 14, in which the axially movable sealing
2 member is a hollow cylinder and the first and second openings are holes through the
3 cylinder.

1 17. (new) A cartridge as in claim 14, in which the first sealing arrangement
2 comprises an at least substantially annular flange-like plate that extends around the
3 inner opening.

1 18. (new) A cartridge as in claim 17, further comprising a fuel-resistant,
2 elastomeric sealing material provided on the flange-like plate, extending around the
3 inner opening between the flange-like plate and the inner wall, and providing a fuel-tight
4 seal when the axially movable sealing member is in the closed position.

1 19. (new) A cartridge as in claim 14, in which:
2 the recess is substantially conical; and
3 the second sealing arrangement comprises an at least substantially conical plug
4 that seats in the recess when the axially movable sealing member is in the closed
5 position.

1 20. (new) A cartridge as in claim 19, further comprising a fuel-resistant,
2 elastomeric sealing material provided on the conical plug and providing a fuel-tight seal
3 between the conical plug and the recess when the axially movable sealing member is in
4 the closed position.

1 21. (new) A cartridge as in claim 14, in which:
2 the fuel is contained in the upper chamber; and
3 when the axially movable sealing member is in the open position, a fuel flow
4 direction is from the upper chamber to and out through the outer channel.

1 22. (new) A cartridge as in claim 14, in which:
2 the upper chamber is provided for receiving and holding fuel-cell fuel for
3 generating electricity for running an electronic device.

1 23. (new) A cartridge as in claim 14, in which the fuel comprises methanol.

1 24. (new) A pair of fuel cartridges – a supply cartridge and a receiving cartridge
2 – each provided according to claim 15, in which:

3 A) the fuel is initially contained in the upper chamber;
4 B) the receiving cartridge further comprises a tubular member that extends
5 axially outward from the receiving cartridge's outer channel and is dimensioned to
6 sealingly mate with the supply cartridge's outer channel;
7 C) the receiving cartridge's pushing element extends partially within the tubular
8 member;
9 D) the supply cartridge and receiving cartridge are provided with mating fittings
10 such that:

11 i) when the supply cartridge and receiving cartridge are connected, the
12 receiving cartridge's tubular member is aligned with and extends into the supply
13 cartridge's outer channel and the receiving cartridge's pushing element contacts and
14 applies the axial force to the supply cartridge's pushing element and the supply

15 cartridge's pushing element applies a counteracting axial force to the receiving
16 cartridge's pushing element, whereby:
17 a) both the supply cartridge's axially movable sealing member and
18 the receiving cartridge's axially movable sealing member assume the open position;
19 b) the supply cartridge's first chamber is in fluid communication
20 with the receiving cartridge's first chamber such that the fuel flows from the supply
21 cartridge's first chamber to the receiving cartridge's first chamber;
22 ii) when the supply cartridge and receiving cartridge are disconnected, the
23 receiving cartridge's pushing element and the supply cartridge's pushing element no
24 longer contact one another and the receiving cartridge's and supply cartridge's
25 respective biasing elements bias the respecting sealing arrangements into the closed
26 position.

1 25. (new) A cartridge as in claim 24, in which:

2 the receiving cartridge is provided for receiving and holding fuel-cell fuel for

3 generating electricity for running an electronic device.

1 26. (new) A cartridge as in claim 24, in which the fuel comprises methanol.

1 27. (new) An electronic device that comprises:

2 a fuel cell for generating electricity from the fuel; and

3 a fuel-holding cartridge configured according to claim 14.

1 28. (new) An electronic device as in claim 27 selected from the group consisting

2 of a mobile telephone, a computer, a calculation unit, a camera, and a recording unit.

3 29. (new) A cartridge for holding a fuel comprising::
4 an enclosing outer wall;
5 an inner wall that separates an interior of the cartridge into a first chamber, which
6 contains the fuel, and a second chamber;
7 an inner opening in the inner wall;
8 a substantially conical recess in a surface of the outer wall in the second
9 chamber;
10 a outer channel extending through the outer wall and connecting the second
11 chamber, via the recess, to an external region outside of the outer wall;
12 an axially movable sealing member that extends through the inner opening;
13 a first sealing arrangement provided on a first end the axially movable sealing
14 member within the first chamber;
15 a second sealing arrangement provided on a second end of the axially movable
16 sealing member that is opposite the first end;
17 a inner channel that extends from a first opening in the axially movable sealing
18 member, through an interior channel in the axially movable sealing member, and to a
19 second opening in the axially movable sealing member;
20 in which:
21 the axially movable sealing member is a hollow cylinder and the first and second
22 openings are holes through the cylinder;
23 when the axially movable sealing member is in a closed position, the first sealing
24 arrangement seats against the inner wall, blocking communication of the first opening
25 with the first chamber; the second sealing arrangement seats against the outer wall, in
26 the recess, blocking communication of second chamber with the external region,
27 whereby the flow channel is closed to flow of the fuel between the first chamber and the
28 external region;
29 when the axially movable sealing member is in an open position, the first opening
30 in the axially movable sealing member is in fluid communication with the first chamber,
31 the second opening in the axially movable sealing member is in fluid communication
32 with the second chamber, and the second chamber is in fluid communication, through
33 the recess and the outer channel, with the external region, whereby fuel can flow

34 between the first chamber and the external region via the inner channel, the second
35 chamber, the recess, and the outer channel;

36 the first sealing arrangement comprises an at least substantially annular flange-
37 like plate that extends around the inner opening;

38 a fuel-resistant, elastomeric sealing material is provided on the flange-like plate,
39 extending around the inner opening between the flange-like plate and the inner wall,
40 and providing a fuel-tight seal when the axially movable sealing member is in the closed
41 position;

42 the second sealing arrangement comprises an at least substantially conical plug
43 that seats in the recess when the axially movable sealing member is in the closed
44 position

45 further comprising:

46 a biasing element biasing the axially movable sealing member into the
47 closed position;

48 a pushing element connected to the second sealing arrangement and
49 extending into the outer channel such that the axially movable sealing member is
50 moved from the closed to the open position when an axial force is applied to the
51 pushing element sufficient to overcome a biasing force of the biasing element.